ATTACHMENT 1

SONS

SONOS

- American developer and manufacturer of networked multi-room audio products
- Founded in 2002
- Based in Santa Barbara, California
- Partner with 100+ companies including
 Apple Music, Spotify, Pandora, Amazon Music,
 iHeartRadio, SiriusXM, and Tidal





Nick MillingtonChief Innovation Officer

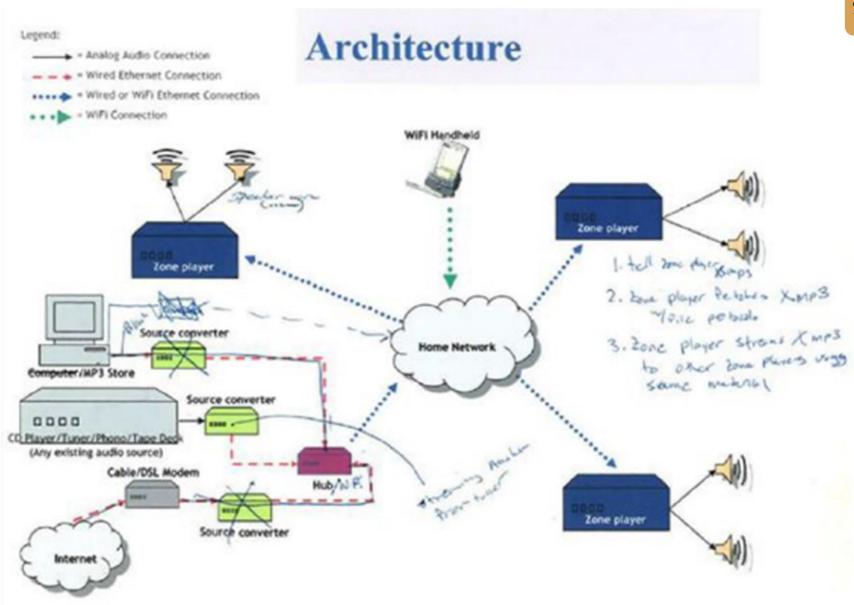
SONOS

Conventional Home Audio Systems





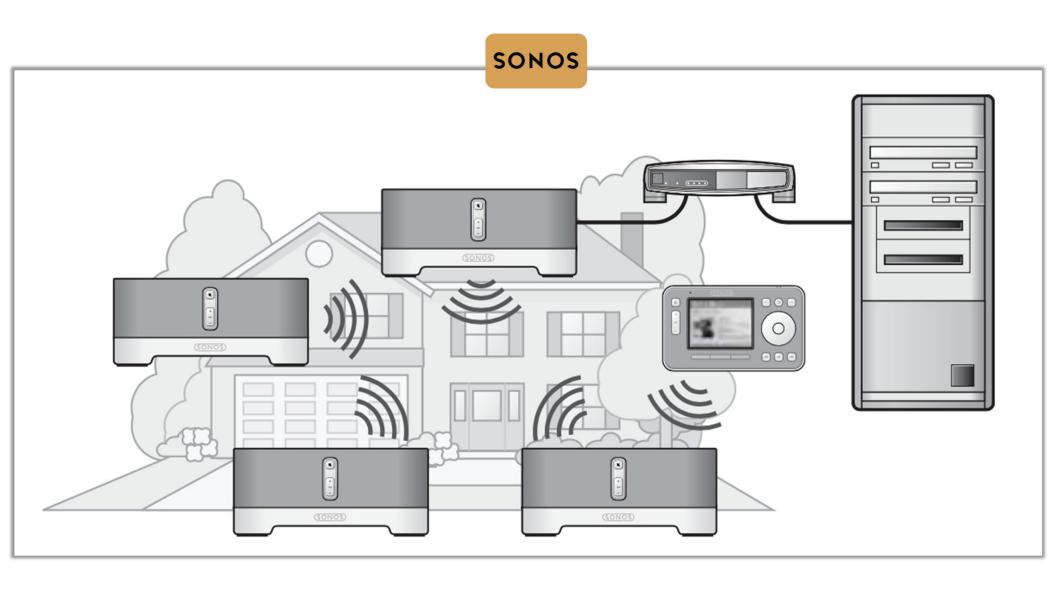






Sonos Releases First Products in 2005







Sonos's Early Recognition And Awards





























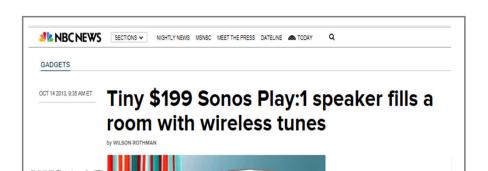














"If you're not familiar with Sonos, this company revolutionized the home audio world a decade ago... If you wanted the same song in every room, no problem, the tracks would be perfectly in sync ... At the time, this was mind blowing."

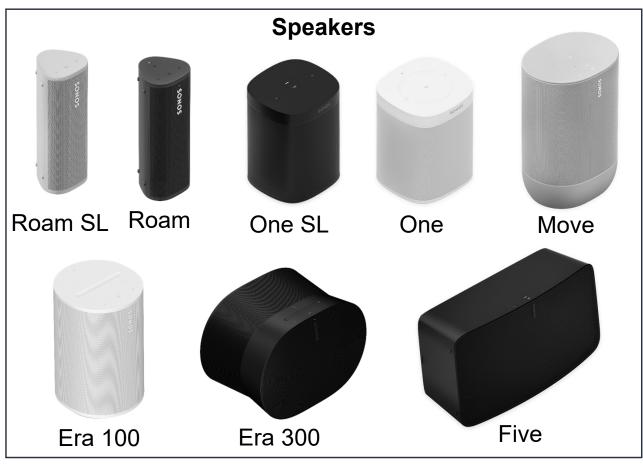
awesome.

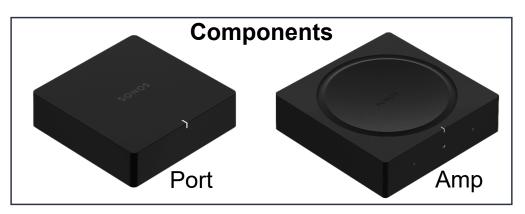
Not that we didn't see this coming: Sonos first introduced a Play:5 at \$399, then a Play:3 at \$299, so a Play:1 at \$199 was inevitable. (There's also a \$699 PlayBar designed to sit under your TV.) That \$199 price tag seems to be a magic number, too: The Play:1 is the cheapest way to get started on a Sonos system, not to mention adding additional rooms to a system that you may already have.

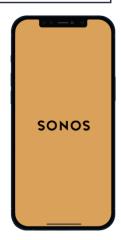
The Play:1 is a single speaker, meaning that the music comes out in mono. However, Sonos' system lets you add a second speaker in the same room, and pair them for stereo sound. And while, like all Sonos gear, you control it mainly through a phone or tablet, this has a new play/pause button, that gives you basic control in places like a kitchen or bathroom, where you may not want to be fumbling with an iPhone.

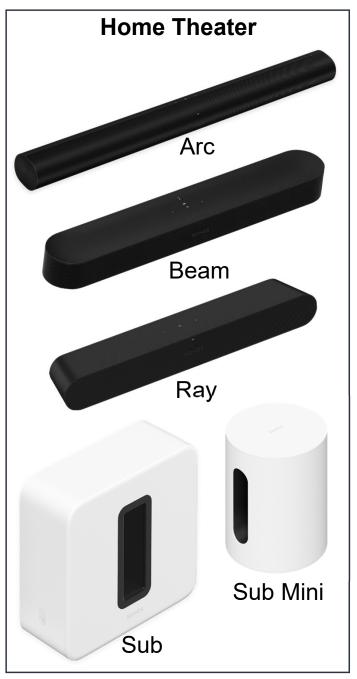


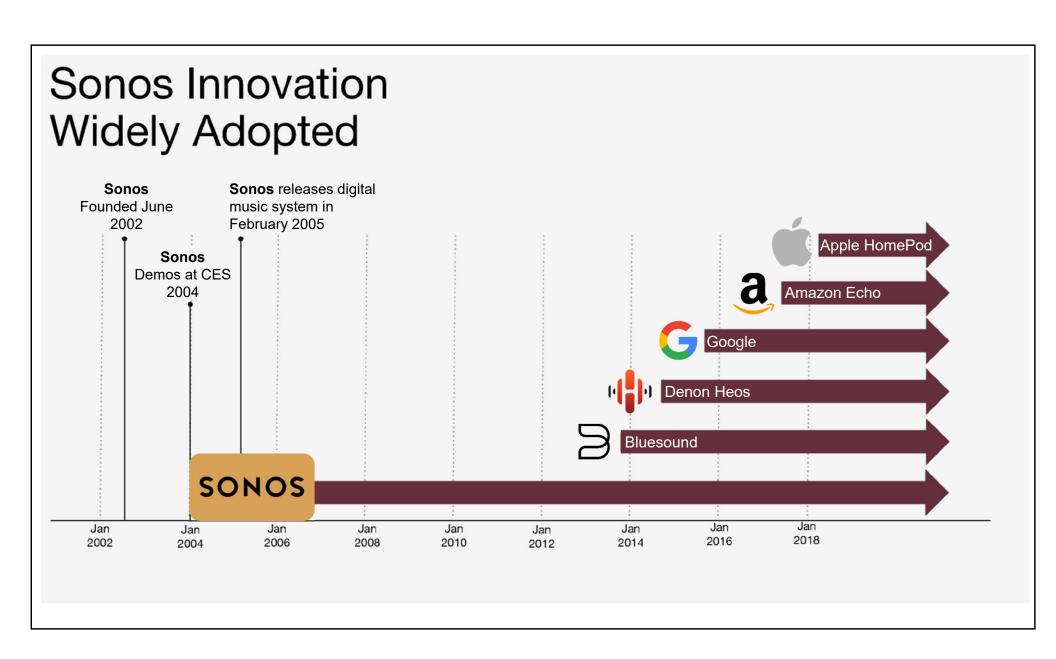
Case 3:20-cv-06754-WHA Document 791-1 Filed 06/01/23 Page 11 of 45 Products













Sonos "Zone Scene" Patents

Google Infringes

No Non-Infringing Alternatives

Sonos Patents Valid

Damages Owed To Sonos



Rob Lambourne
Director of UX

SONOS



Rob Lambourne
Inventor

SONOS

SONOS **'885** (12) United States Patent (10) Patent No.: US 10,848,885 B2 Lambourne (45) Date of Patent: *Nov. 24, 2020 (54) ZONE SCENE MANAGEMENT References Cited U.S. PATENT DOCUMENTS (71) Applicant: SONOS, INC., Santa Barbara, CA (US) (72) Inventor: Robert A. Lambourne, Santa Barbara, CA (US) (Continued) (73) Assignce: Sonos, Inc., Santa Barbara, CA (US) FOREIGN PATENT DOCUMENTS (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days. (Continued) This patent is subject to a terminal dis-OTHER PUBLICATIONS (21) Appl. No.: 16/383,561 Yamaha DME Designer 3.5 user manual (Year: 2004).* (Continued) (22) Filed: Apr. 12, 2019 Prior Publication Data Primary Examiner - Paul C McCord US 2019/0239008 A1 Aug. 1, 2019 ABSTRACT Related U.S. Application Data An example playback device in a first zone of a media (63) Continuation of application No. 15/130,919, filed on Apr. 15, 2016, which is a continuation of application playback system receives a first indication that the first zone has been added to a first zone scene including a first preconfigured grouping of zones including the first zone and a second zone. The playback device receives a second (Continued) (51) Int. CL indication that the first zone has been added to a second zone G06F 17/00 H04R 27/00 scene including a second preconfigured grouping of zones including the first zone and a third zone. After a given one (2006.01) of the first and second zone scenes has been selected for (52) U.S. Cl. invocation, the playback device receives an instruction to operate in accordance with the given zone scene, and based H04R 27/00 (2013.01): G05R 15/02 (2013.01); G06F 3/0482 (2013.01); on the instruction, begins operating in accordance with the given zone scene such that the playback device is configured (Continued) to play back audio in synchrony with one or more other playback devices in the media playback system. CPC H04R 27/00; H04R 3/12; H04R 2227/005; H04R 2430/01: G05B 15/02: (Continued) 20 Claims, 11 Drawing Sheets save the scene with parameters check status of zone players in the scene 612

X0003

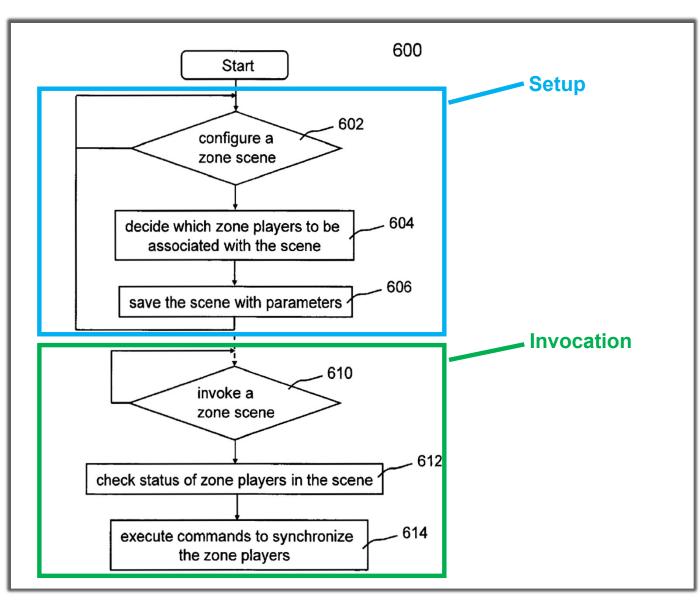
3:20-cv-06754-WHA

SONOS **'966** (12) United States Patent (10) Patent No.: US 10,469,966 B2 Lambourne (45) Date of Patent: (54) ZONE SCENE MANAGEMENT References Cited U.S. PATENT DOCUMENTS (71) Applicant: SONOS, INC., Santa Barbara, CA (US) (72) Inventor: Robert A. Lambourne, Santa Barbara, (Continued) (73) Assignee: Sonos, Inc., Santa Barbara, CA (US) FOREIGN PATENT DOCUMENTS (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days. (Continued) (21) Appl. No.: 16/383,565 OTHER PUBLICATIONS Yamaha DME Designer 3.5 user manual (Year: 2004).* (Continued) Prior Publication Data Primary Examiner - Paul C McCord US 2019/0239009 A1 Aug. 1, 2019 ABSTRACT Related U.S. Application Data An example computing device in a media playback system receives a first request to create a first zone scene including a first preconfigured grouping of zones including a first zone and a second zone, and based on the first request, causes (63) Continuation of application No. 15/130,919, filed on Apr. 15, 2016, which is a continuation of application (Continued) creation and storage of the first zone scene. The computing (51) Int. Cl. G06F 17/00 H04R 27/00 creation and storage of the first zone scene. The computing device receives a second request to create a second zone scene including a second preconfigured grouping of zones including the first zone and a third zone, and based on the (2006.01) second request, causes creation and storage of the second zone scene. While displaying a representation of the first zone scene and a representation of the second zone scene, the computing devices receives a third request to invoke the (Continued) (52) U.S. Cl. H04R 27/00 (2013.01); G05B 15/02 (2013.01); G06F 3/0482 (2013.01); first zone scene, and based on the third request, causes the first zone scene to be invoked such that the first zone and the second zone become configured for synchronous playback (58) Field of Classification Search CPC H04R 27/00; H04R 3/12; H04R 2227/005; H04R 2430/01; G05B 15/02; of media 20 Claims, 13 Drawing Sheets Start invoke a zone scen check status of zone players in the scene



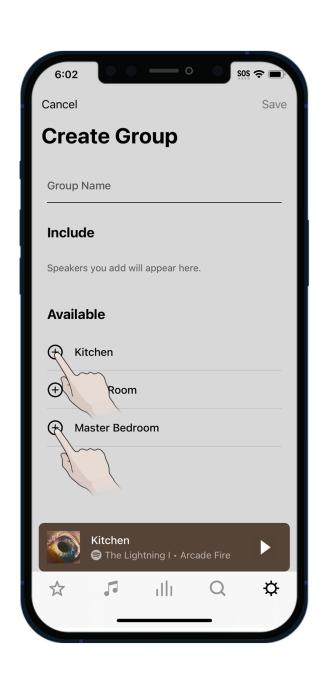
Sonos's "Zone Scene" Patents

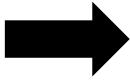


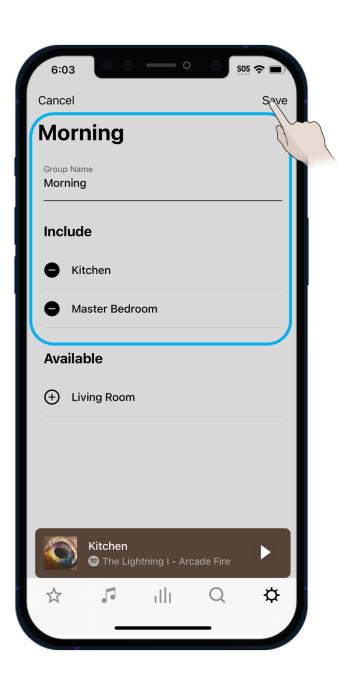


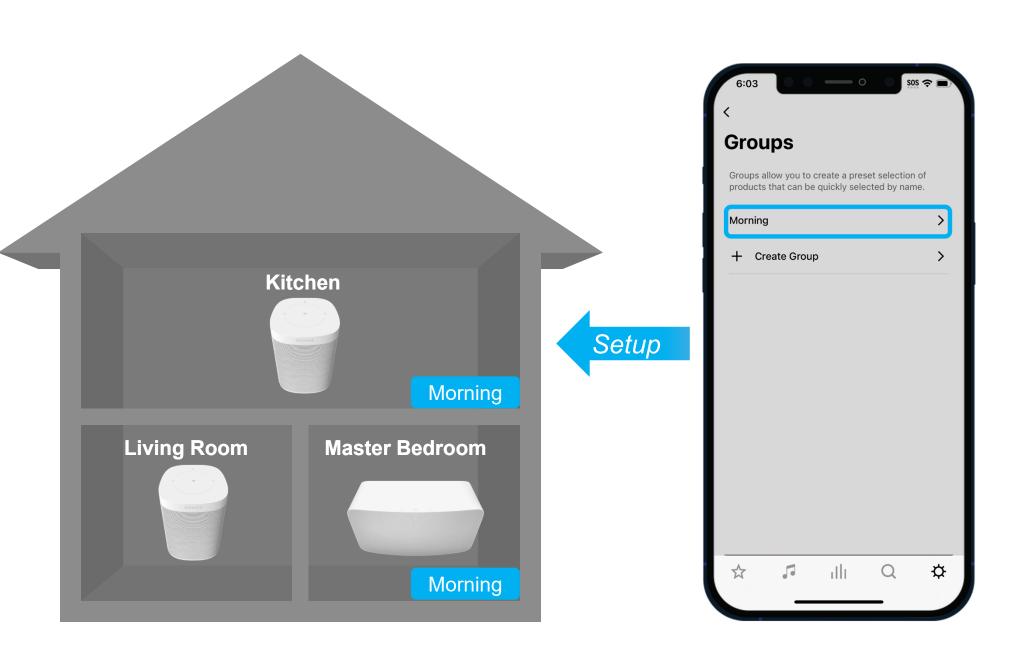
'885 Patent at Fig. 6

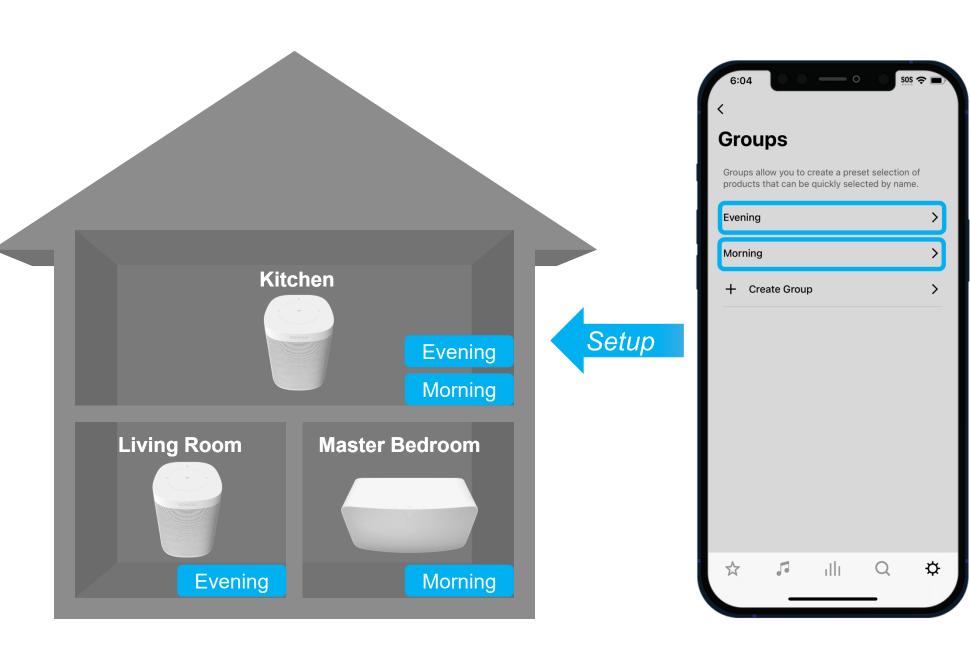






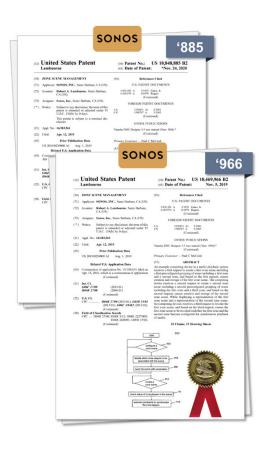


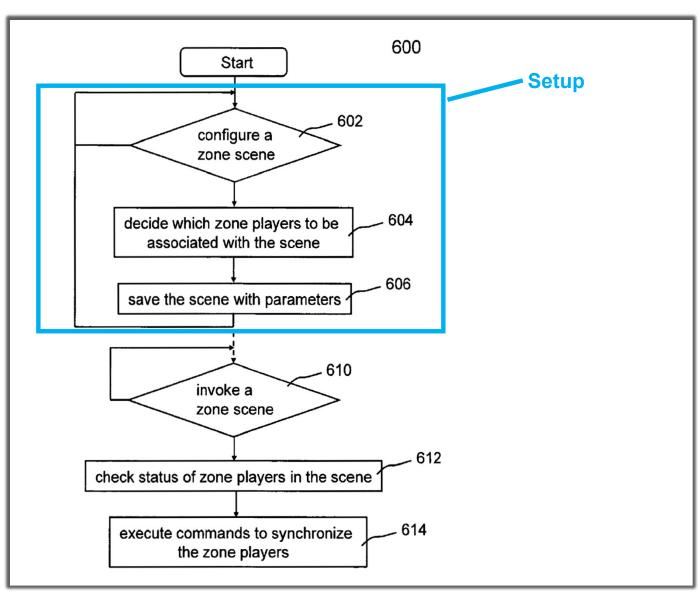






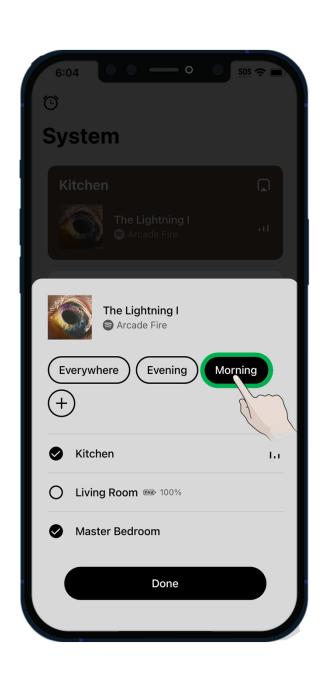
Sonos's "Zone Scene" Patents

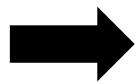




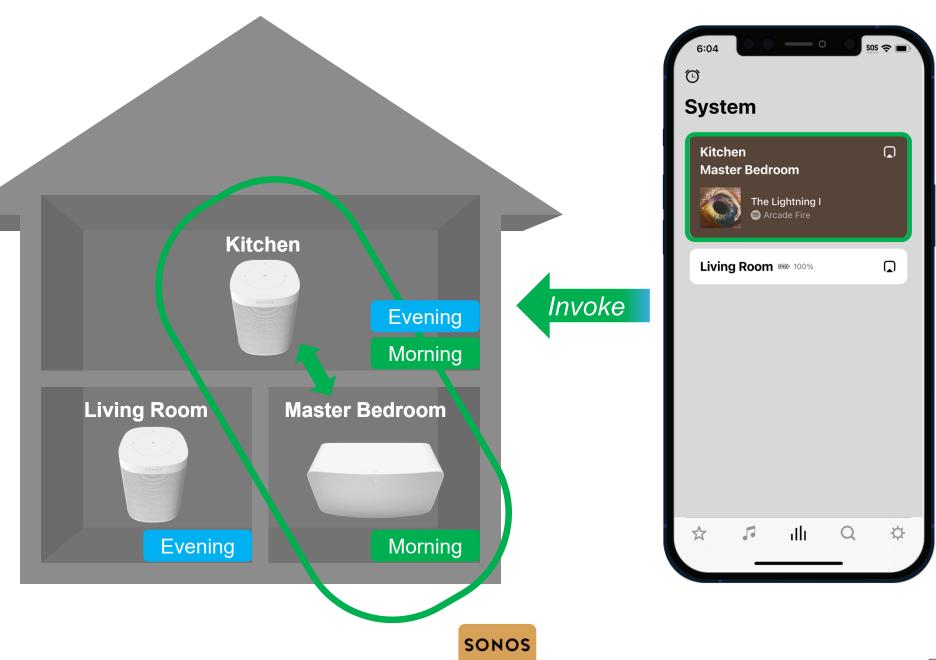
'885 Patent at Fig. 6





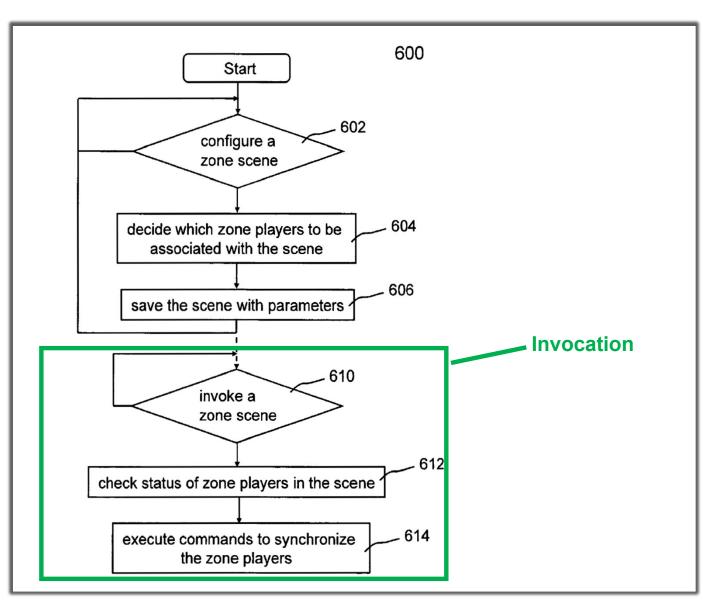






Sonos's "Zone Scene" Patents





'885 Patent at Fig. 6



Sonos "Zone Scene" Patents

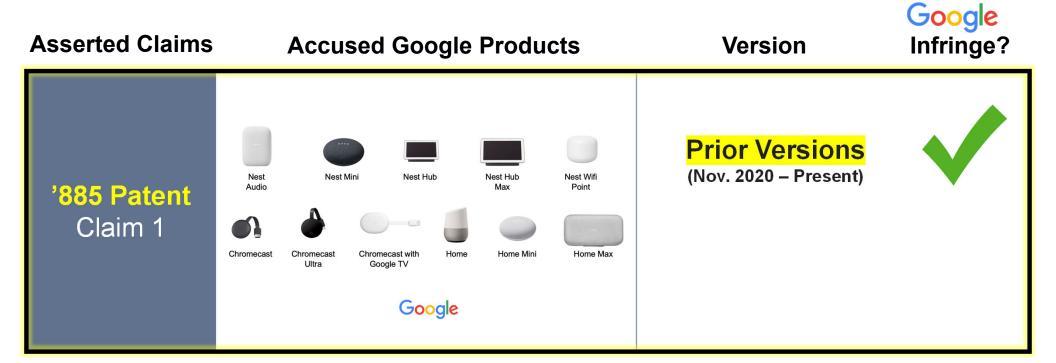
Google Infringes

No Non-Infringing Alternatives

Sonos Patents Valid

Damages Owed To Sonos

Infringement — Conclusion



Infringement of 885 Patent, Claim 1

- [1.0] A first zone player comprising:
- [1.1] a network interface that is configured to communicatively couple the first zone player to at least one data network;
- [1.2] one or more processors;
- [1.3] a non-transitory computer-readable medium; and
- [1.4] program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the first zone player to perform functions comprising:
 - [1.5] while operating in a standalone mode in which the first zone player is configured to play back media individually in a networked media playback system comprising the first zone player and at least two other zone players:
 - [1.6] (i) receiving, from a network device over a data network, a first indication that the first zone player has been added to a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked; and
 - [1.7] (ii) receiving, from the network device over the data network, a second indication that the first zone player has been added to a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the second zone player is different than the third zone player;
 - [1.8] after receiving the first and second indications, continuing to operate in the standalone mode until a given one of the first and second zone scenes has been selected for invocation:
 - [1.9] after the given one of the first and second zone scenes has been selected for invocation, receiving, from the network device over the data network, an instruction to operate in accordance with a given one of the first and second zone scenes respectively comprising a given one of the first and second predefined groupings of zone players; and
 - [1.10] based on the instruction, transitioning from operating in the standalone mode to operating in accordance with the given one of the first and second predefined groupings of zone players such that the first zone player is configured to coordinate with at least one other zone player in the given one of the first and second predefined groupings of zone players over a data network in order to output media in synchrony with output of media by the at least one other zone player in the given one of the first and second predefined groupings of zone players.









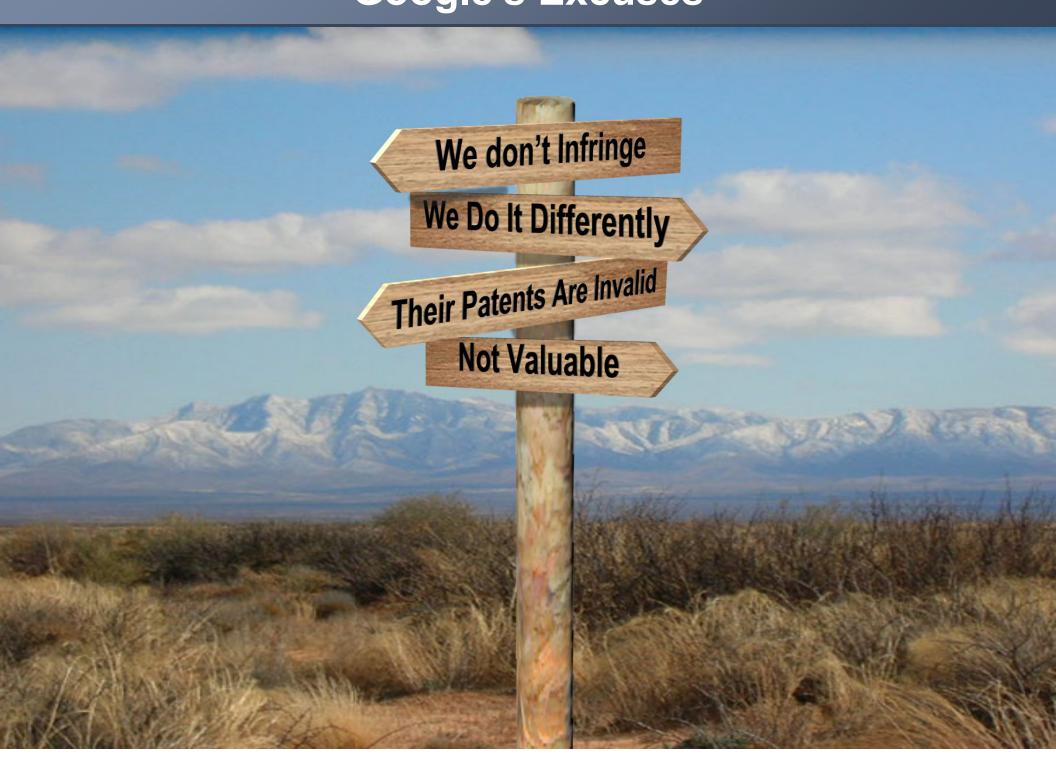














Dr. AlmerothTechnical Expert



Education

Georgia Institute of Technology

- Ph.D. Computer Science 1997
- M.S. Computer Science 1994
- B.S. Computer Science 1992

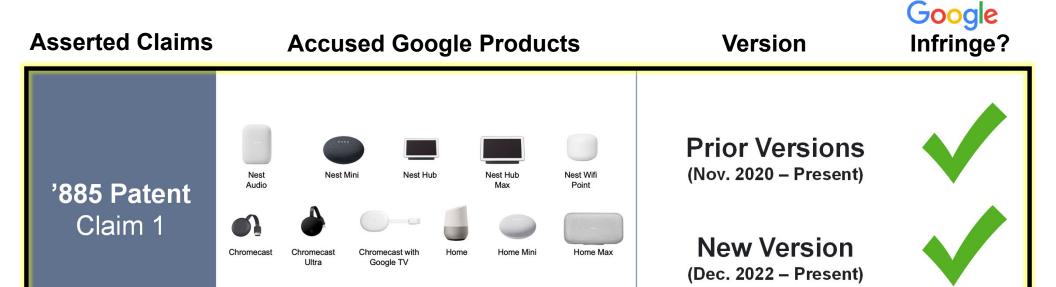
Academic Appointments

- Professor Emeritus, Dept. of Computer Science UC Santa Barbara (2020-Present)
- Professor, Dept. of Computer Science UC Santa Barbara (1997-2020)
- Vice Chair, Dept. of Computer Science UC Santa Barbara (2001-2005)
- Associate Dean, College of Engineering UC Santa Barbara (2007-2009)

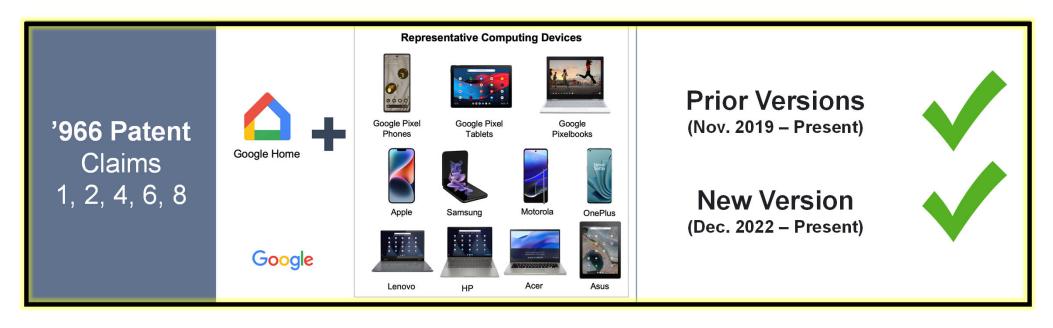
Research Experience

- 25+ years of experience as a computer networking researcher
- Approximately 200 peer-reviewed publications
- **19** released software systems

Infringement — Conclusion



Google



Infringement of 966 Patent, Claim 1

- [1.0] A computing device comprising:
- [1.1] one or more processors;
- [1.2] a non-transitory computer-readable medium; and;
- [1.3] program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:
 - [1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:
 - [1.5] receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;
 - [1.6] based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;
 - [1.7] receiving a second request to create a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;
 - [1.8] based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;
 - [1.9] displaying a representation of the first zone scene and a representation of the second zone scene; and
 - [1.10] while displaying the representation of the first zone scene and the representation of the second zone scene, receiving a third request to invoke the first zone scene; and
 - [1.11] based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.





















Sonos "Zone Scene" Patents

Google Infringes

No Non-Infringing Alternatives

Sonos Patents Valid

Damages Owed To Sonos

No Acceptable Non-Infringing Alternatives

'885 Patent
Claim 1

Acceptable Non-Infringing Alternatives?



'966 Patent Claims 1, 2, 4, 6, 8

Acceptable Non-Infringing Alternatives?







Sonos "Zone Scene" Patents

Google Infringes

No Non-Infringing Alternatives

Sonos Patents Valid

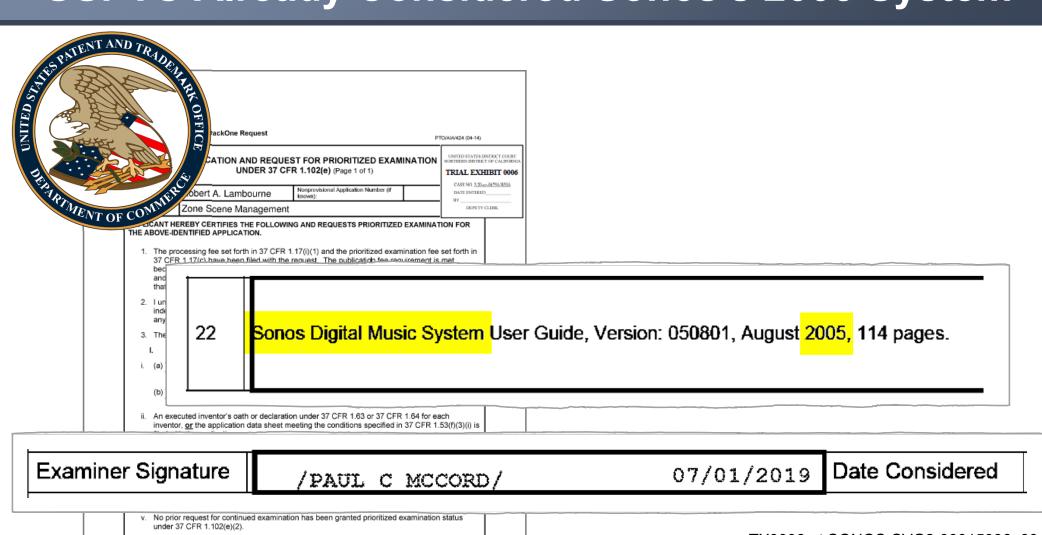
Damages Owed To Sonos

Presumption Of Validity And High Burden Of Proof

- A patent is presumed valid
- Google must prove invalidity by <u>clear and</u> <u>convincing</u> evidence



USPTO Already Considered Sonos's 2005 System



/Brandon J. Kennedy/ ate April 12, 2019 Practitioner Registration Number 67,894 Brandon J. Kennedy This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certification Submit multiple forms if more than one signature is required.* *Total of ______ forms are submitted.

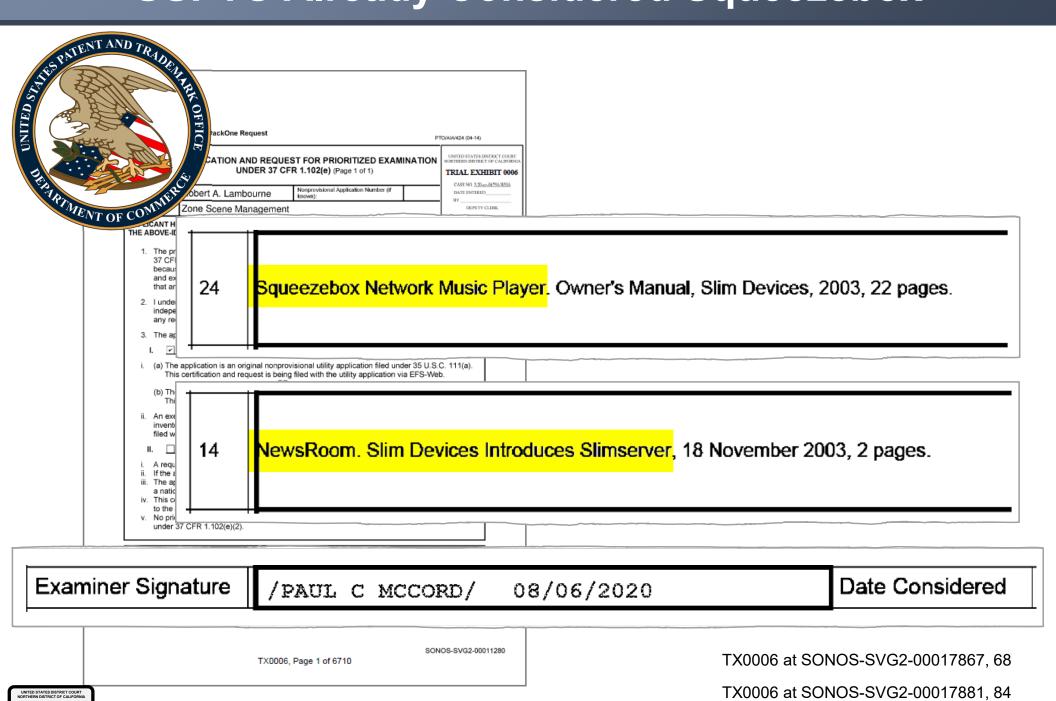
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TX0006, Page 1 of 6710



TX0006 at SONOS-SVG2-00015096, 99

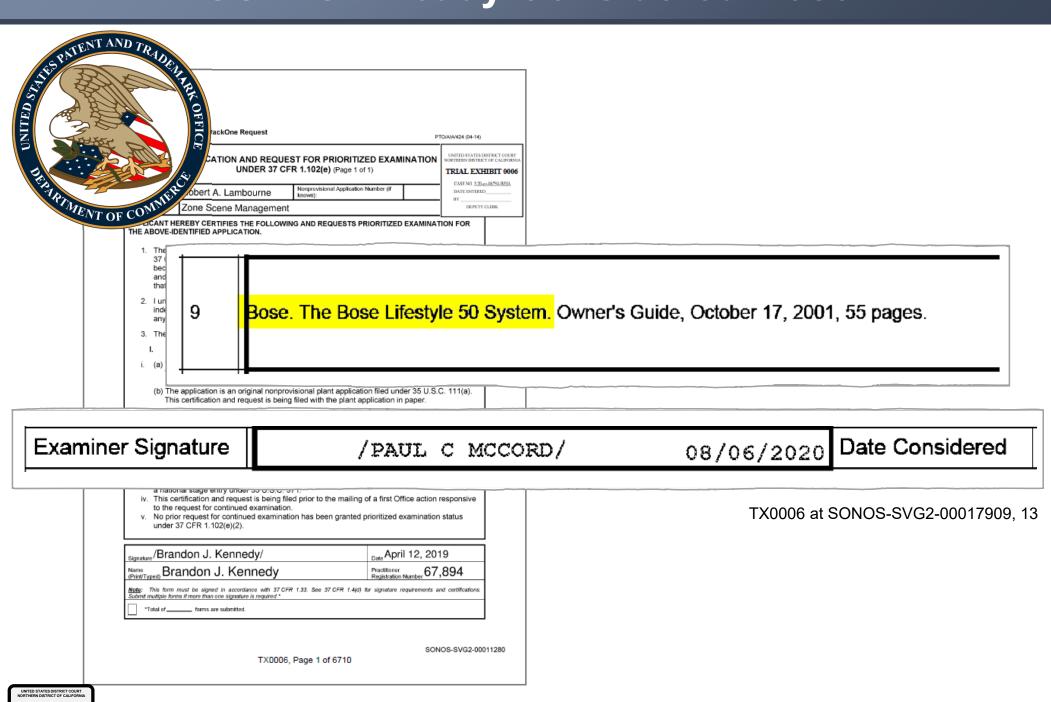
USPTO Already Considered Squeezebox



TX0006

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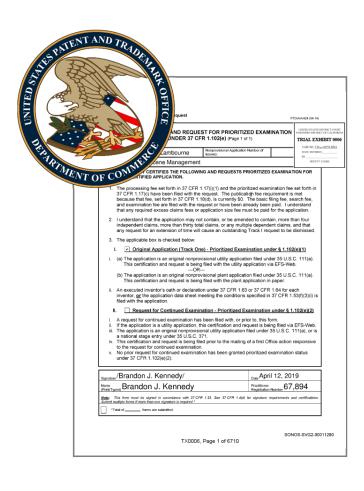
USPTO Already Considered Bose



TX0006

3:20-cv-06754-WHA

The Patent Office Considered Prior Art



| | | 22 | Sonos Digital Music Sys | t <mark>em </mark> User Guide, Version: 050801, August <mark>2005,</mark> 114 pages. |
|--|---|-----|--|--|
| | | 24 | Squeezebox Network Mu | usic Player. Owner's Manual, Slim Devices, 2003, 22 pages. |
| UNITED STATES DISTRICT COURT ROSCITERA DISTRICT OF CALIFORNIA TRIAL EXHIBIT 0006 | | 14 | NewsRoom. Slim Devid | ces Introduces Slimserver, 18 November 2003, 2 pages. |
| DEPUTY CLERK DN FOR | | 9 | Bose. The Bose Lifestyl | e 50 System. Owner's Guide, October 17, 2001, 55 pages. |
| et forth in net roch fee, prstand cation. in four | | 20 | 7197148 | 2007-03-27 NOURSE; James D. et al. |
| in four and that smissed. | | 194 | 8239559 | 2012-08-07 RAJAPAKSE; Ravi |
| . 111(a). . 111(a). | | 192 | 8234395 | 2012-07-31 MILLINGTON; Nicholas A J. et al. |
| 3(f)(3)(i) is 02(e)(2) EFS-Web. | | 155 | 20040223622 | 2004-11-11 LINDEMANN; Eric Lee et al. |
| 11(a), or is esponsive status | | 44 | Yamaha DME Desi | gner 3.5 User Manual; Copyright 2004, 507 pages. |
| 9 B94 certifications | | 3 | Crestron Adagio AMS | S Media System Operations Guide, 2008, 114 pages. |
| os-svG2-00011280 | | 4 | Crestron, Adagio, Hom | ne Entertainment is Just the Beginning2007, 10 pages. |
| | | 5 | Crestron. AVS For | um. 1 December 2007, 9 pages. |
| Crestron Industry, | - | - | the state of the s | ovation has Resulted in the Most Award-Winning Products in the |
| Crestror Industry | | | | ovation has Resulted in the Most Award-Winning Products in the |



Sonos "Zone Scene" Patents

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Damages Owed To Sonos

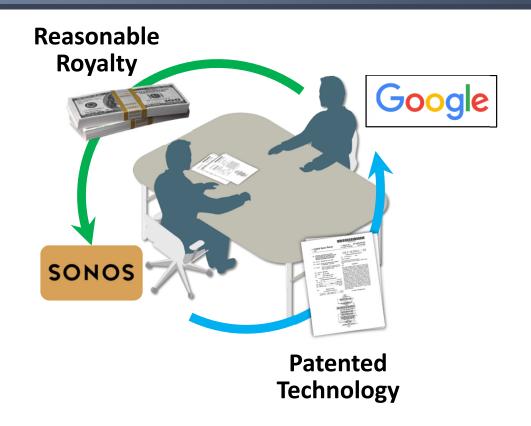


James Malackowski Economist



- Senior Managing Director of Ocean Tomo, LLC, a part of J.S. Held
- Inventor on 20 issued patents
- Summa Cum Laude graduate of the University of Notre
 Dame majoring in accountancy and philosophy
- Certified Public Accountant
- Certified Licensing Professional
- Adjunct Instructor for graduate studies on IP management
- Served as an expert on questions relating to intellectual property economics on over 100 occasions

Hypothetical negotiation



The royalty that a licensor (such as Sonos) and a licensee (such as Google) would have agreed upon if both had been reasonably and voluntarily trying to reach an agreement

Hypothetical negotiation would have resulted in a <u>per-unit</u> reasonable royalty rate of

'966 Patent

\$0.82

November 5, 2019 – September 30, 2022

'885 Patent

\$0.87

November 24, 2020 – November 15, 2022

Reasonable Royalty Damages — 966 Patent

| Period | Royalty Rate | Infringing <u>Installs</u> | Reasonable Royalty |
|-------------------------|--------------|----------------------------|-----------------------|
| 11/05/2019 - 12/31/2019 | \$0.82 | 7,116,206 | \$5,829,646 |
| 01/01/2020 - 12/31/2020 | \$0.82 | 30,414,646 | \$24,915,890 |
| 01/01/2021 - 12/31/2021 | \$0.82 | 30,785,932 | \$25,293,778 |
| 01/01/2022 - 11/15/2022 | \$0.82 | 26,254,183 | \$21,507,609 |
| | \$0.82 | 94,660,967 | \$77,546,923 |

Reasonable Royalty Damages — 885 Patent

| Period | Royalty Rate | Infringing <u>Units</u> | Reasonable Royalty |
|-------------------------|--------------|-------------------------|-----------------------|
| 11/24/2020 - 12/31/2020 | \$0.87 | 2,011,080 | \$1,742,539 |
| 01/01/2021 - 12/31/2021 | \$0.87 | 8,749,080 | \$7,580,810 |
| 01/01/2022 - 09/30/2022 | \$0.87 | 3,373,398 | \$2,922,946 |
| | \$0.87 | 14,133,558 | \$12,246,294 |

Hypothetical negotiation would have resulted in a <u>reasonable royalty payment</u> of

'966 Patent

\$77,546,923

November 5, 2019 – September 30, 2022

'885 Patent

\$12,246,294

November 24, 2020 – November 15, 2022